

# Exhibit 32

## About Data

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### Demographic Data

DRA 2020 has demographic data from the 2020 and 2010 Censuses and from the 2018 and 2019 American Community Survey 5-Year Estimates. The 2020 and 2010 data include total population and voting age population data (VAP), and was obtained directly from the Census Bureau. The 2018 and 2019 data include total population and citizen voting age population data (CVAP).

For 2020 Shapes, 2010, 2018 and 2019 data was disaggregated using [Voting and Election Science Team's](#) method as described [here](#). More detail is in the *Disaggregation* section below. All data that has been disaggregated contains some margin of error, and should be treated accordingly.

For all years the following ethnic and racial categories are included. **Because the categories overlap, their sum will be greater than the total population for the same area.** Note that for CVAP data, the racial categories are estimates calculated from other fields, because the Census Bureau does not provide them directly in those datasets, and they tend to underrepresent the Asian and Pacific categories.

- White (alone, not Hispanic)
- Hispanic (all Hispanics regardless of race)
- Black (Black alone or in combination with other races, including Hispanic)
- Asian (Asian alone or in combination with other races, including Hispanic)
- Native (American Indian and Alaska Native alone or in combination with other races, including Hispanic)
- Pacific (Native Hawaiian and Pacific Islander alone or in combination with other races, including Hispanic)

For some states we provide additional 2020 VAP data with Non-Hispanic Race Alone categories.

- White (alone, not Hispanic)
- Hispanic (all Hispanics regardless of race)
- Black (Black alone, not Hispanic)
- Asian (Asian alone, not Hispanic)
- Native (American Indian and Alaska Native alone, not Hispanic)
- Pacific (Native Hawaiian and Pacific Islander alone, not Hispanic)
- Other (Other race alone, not Hispanic)
- TwoOrMore (Two or more races, not Hispanic)

Some states adjust their 2020 Total Population numbers to count incarcerated individuals in their home precincts, to be used for congressional and/or legislative redistricting. See [Reallocating Inmate Data for Redistricting](#), [Prison Gerrymandering Project](#) and state pages for more details. Adjusted data can have negative population values for some blocks.

## Election Data

DRA 2020 has election data for a range of elections, varying by state.

In addition to data for individual elections, we construct an Election Composite of two or more elections. The Composite gives a measure of partisanship over different contests and years, which we prefer, because individual elections can be skewed by various factors. We use the latest available elections, and those not available are simply left out. We also exclude uncontested elections and those that have a significant third-party vote percentage (usually > 10%). The formula is the following:

Composite = Mean(Pres, Sen, GovAg), where  
 Pres = Mean(1 or 2 Presidential elections),  
 Sen = Mean(1 or 2 Senate elections) and  
 GovAg = Mean(Governor and Attorney General elections).

All of our election data has come from partners who have done the work to obtain the data, marry it to some geography (e.g. precincts), and process necessary changes, such as distributing absentee votes that are not allocated to precincts. We thank them for their valuable work. The following table shows the data we have for each state, along with attributions for each election dataset. We continue to add election data as it becomes available.

- CSDB=[California State Database](#)
  - MGGG=[Metric Geometry and Gerrymandering Group](#)
  - MIT=[MIT Election Data Science Lab](#)
  - OP=[Open Precincts](#)
  - PVI=Cook PVI data from Ryne Rohla/Decision Desk HQ; See also [Atlas of Redistricting](#).
  - SA=[Stephen Ansolabehere, Jonathan Rodden](#)
  - SG=Steve Gerontakis, with John Mifflin
  - TC=Tyler Chafee
  - VE=[Voting and Election Science Team](#)
- ★ This election is part of the Election Composite.

## Election Data By State/Shapes

State	2020 Shapes	2010 Shapes
Alabama	<ul style="list-style-type: none"> <li>• 2012 President (PVI)</li> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE)</li> <li>• 2017 Senator (Special) (VE) *</li> <li>• 2018 Governor (VE) *</li> <li>• 2018 Attorney General (VE) *</li> <li>• 2020 President (VE) *</li> <li>• 2020 Senator (VE) *</li> </ul>	<ul style="list-style-type: none"> <li>• 2008 President (SG)</li> <li>• 2012 President (PVI) *</li> <li>• 2016 President (PVI) *</li> </ul>
Alaska	<ul style="list-style-type: none"> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE)</li> <li>• 2018 Governor (VE) *</li> <li>• 2020 President (VE) *</li> <li>• 2020 Senator (VE) *</li> </ul>	<ul style="list-style-type: none"> <li>• 2008 President (SG)</li> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE)</li> <li>• 2018 Governor (VE) *</li> </ul>
Arizona	<ul style="list-style-type: none"> <li>• 2012 President (PVI)</li> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE)</li> <li>• 2018 Senator (VE) *</li> <li>• 2018 Governor (VE) *</li> <li>• 2018 Attorney General (VE) *</li> <li>• 2020 President (VE) *</li> <li>• 2020 Senator (VE) *</li> </ul>	<ul style="list-style-type: none"> <li>• 2008 President (SG)</li> <li>• 2012 President (PVI) *</li> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE) *</li> <li>• 2018 Senator (VE) *</li> <li>• 2018 Governor (VE) *</li> <li>• 2018 Attorney General (VE) *</li> </ul>
Arkansas	<ul style="list-style-type: none"> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE) *</li> <li>• 2018 Governor (VE) *</li> <li>• 2018 Attorney General (VE) *</li> <li>• 2020 President (VE) *</li> <li>• 2020 Senator (VE) *</li> </ul>	<ul style="list-style-type: none"> <li>• 2008 President (SG)</li> <li>• 2012 President (PVI) *</li> <li>• 2016 President (VE) *</li> <li>• 2016 Senator (VE) *</li> <li>• 2018 Governor (OP) *</li> <li>• 2018 Attorney General (OP) *</li> </ul>